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A CRITIQUE OF THE EMPLOYMENT PROJECTIONS OF THE METROPOLITAN AREA PLANNING COUNCIL, AND A PROPOSAL FOR A NEW PROJECTION EFFORT

Alexander Ganz and Gregory Perkins

Boston Redevelopment Authority
Research Department

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Kevin H. White, Mayor
City of Boston

Robert J. Ryan, Director
Boston Redevelopment Authority

Alexander Ganz
Research Director

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Summary

MAPC's employment projections are not for real. Employment in the MAPC region, in the 1970-80 decade, increased by 75 percent more than the MAPC is projecting for the thirty-year period, 1980-2010. Employment in Boston, in the five-year period, 1976-81, rose by one-third more than the MAPC foresees for the thirty years from 1980 to 2010. Development investment is favorably transforming the economy of the City and the Region, attuning their economic base to those sectors expanding most rapidly nationally. Investment underway and planned in Boston will generate more than 50,000 jobs in the next five years.

The leading up-to-date recognized and respected forecasters, including Data Resources Inc., the Massachusetts Economic Policy Analysis Model, have a much more expansive view of the future. The MEPA econometric forecasting model, for example, which ties in with the DRI national view, projects a 26 percent growth in employment over the thirty years, 1980-2010, in comparison with the fourteen percent increase actually experienced in the ten years, 1970-80, and in contrast with MAPC's ten percent rise for the thirty-year 1980-2010 period. Employment in the MAPC region makes up 55 percent of that of the state, has been growing more rapidly since 1970, and reflects a greater concentration of those high-technology and broad-based services activities expanding most quickly.

The MAPC's employment projections suffer from two basic errors--out-of-date information on employment "demand", and an inappropriate constraint on labor force "supply". The U.S. Bureau of Economic Analysis 1980 OBERS projections of employment "demand" for New England are vintage, with a data base extending only through 1978. The OBERS

projections unduly weight the impact of the early 1970s' recessions on New England and do not reflect the significance of the 1976-82 resurgence and the region's transformed economic base. Daniel Garnick, Deputy Director for Regional Analysis, U.S. Bureau of Economic Analysis, has criticized and differs with the 1980 OBERS projections for New England (most recently in December 1982). These should not be used.

On labor force "supply", MAPC feels it is stuck with their "no-growth" population projections, and applying modest assumptions on the increase in labor force participation rates, they come up with a limited rise in the labor force. This treatment overlooks the Massachusetts experience of a 1970-80 population increase of a minimal 39,118 while employment rose by 361,401. George Masnick, the Harvard demographer, had admonished the MAPC, at a lunch seminar, that projections of metro area employment demand should not be limited by that for the population.

The MAPC employment projections are unsuitable. At least six cities and towns, including four of the five largest in the MAPC region, in terms of employment, and representing almost half of the region's jobs, have taken exception to the MAPC employment projections. Only one small community has written in favor. They should be substituted by more appropriate ones. The following is a summary of a proposal offered.

(1) A "base line" projection be prepared, in the framework of 1980-2010 employment projections for the U.S. (+30 percent), and reflecting the 1967-80 trend experience in Massachusetts, including both the periods of recession and resurgence, assuming a lesser rate of growth (+24%). In this context, the MAPC region would be assumed to have a declining share of the state and a lower employment growth (+19 percent), though the reverse has been the case since 1970. For Boston, a declining share of MAPC region employment would be assumed, together with a smaller employment growth (+14 percent). The 1990 and year 2000 projections for Massachusetts would be calibrated to the same ratio as

the U.S. 1990 and year 2000 percent share of U.S. 2010, to reflect the changing national demographics.

Such projections would yield thirty-year employment growth increments of 315,322 for the MAPC region, in comparison with 261,700 in the 1970-80 decade, and a thirty-year increase of 74,487 for Boston, in relation to the 50,000 job rise in the five-year period 1976-81.

(2) A growth prospect and potential projection would also be prepared to reflect the more expansive view of the U.S. Bureau of Labor Statistics national projections 1980-90, and the BRA planning and development projections for Boston 1980-90. In both cases, the rosier appreciation reflects "goals" suitable for achieving expanding opportunity. Both assume a thriving national economy. The Boston projections assume improved job gains in the communications-information-knowledge industries, in line with projected national trends, and take note of the implications of the extraordinary development investment underway for expansion of the job creation base. Boston employment 1980-90 is projected as a function of U.S. employment, at the 2-digit level. A slightly more expansive view of Massachusetts 1980-90 employment growth (than that of the Massachusetts Department of Employment Security) is also forecast, based on the 1970-80 experience, and the successful transformation favoring high technology and services. Employment (1980-90) for the MAPC region is forecast as a function of that for the State.

Projections for the years 2000 and 2010 utilize, for the U.S., the BEA OBERS employment growth rate. For Massachusetts, the increase in jobs was projected at eighty percent of the U.S. rate for 1990-2000 and 2000 to 2010, as was the case for the State's projected employment growth in the 1980-90 period. In turn, employment in the MAPC region is projected as a declining share of that of the State, and jobs in Boston are forecast as a lessening share of that of the MAPC region.

Table 1

BRA MODERATE GROWTH EMPLOYMENT PROJECTIONS

	United States	State of Massachusetts	MAPC Region	City of Boston
1980	106,412,300	2,899,655	1,631,504	548,497
	14.6	11.9	9.4	7.4
1990	121,986,000	3,244,714	1,784,593	588,916
	7.3	6.3	4.4	4.4
2000	130,943,000	3,450,590	1,863,319	614,895
	5.4	4.5	4.5	1.3
2010	137,994,000	3,605,234	1,946,826	622,984
%1980-2010	29.7%	24.3%	19.3%	13.6%
1980-2010	(+31,582,000)	(+705,579)	(+315,322)	(+74,487)
Growth Rate As % U.S. Growth Rate	100%	82%	65%	46%

MAPC/Mass.	Boston/MAPC	
.56	.34	1980
.55	.33	1990
.54	.33	2000
.54	.32	2010

MAPC & Boston set as % of Mass.
& MAPC respectively.

Table II

BRA HIGH GROWTH EMPLOYMENT PROJECTIONS
(BEA EQUIVALENT EMPLOYMENT COUNT)

	United States		State of Massachusetts		MAPC Region		City of Boston	
1980	106,412,300		2,899,655		1,631,504		548,497	
		22.8		16.0		13.4		14.7
1990	130,665,000		3,363,600		1,849,980		628,993	
		7.3		5.1		3.2		3.2
2000	140,204,000		3,535,144		1,908,978		649,053	
		5.4		3.8		3.8		.7
2010	147,775,000		3,669,480		1,981,519		653,901	
%1980-2010	38.9%		26.5%		21.5%		19.2%	
1980-2010	(+41,362,700)		(+769,825)		(+350,015)		(+105,404)	
Growth Rate as % U.S. Growth Rate	100%		68.1%		55.3%		49.4%	

MAPC/Mass.	Boston/MAPC	
.56	.34	1980
.55	.34	1990
.54	.34	2000
.54	.33	2010

Table III

BRA 1980-2010 EMPLOYMENT PROJECTIONS
(MAPC/DES EQUIVALENT COUNT)

A. Moderate Growth Series (Baseline)

	United States	State of Massachusetts	MAPC Region	City of Boston
1980	90,406,000	2,595,700	1,506,371	505,360
1990	103,688,100	2,904,019	1,647,718	542,392
2000	111,301,600	3,088,278	1,720,406	549,130
2010	117,294,900	3,226,684	1,797,509	573,768

B. High Growth Series (Potential)

	United States	State of Massachusetts	MAPC Region	City of Boston
1980	90,406,000	2,595,700	1,506,371	505,360
1990	111,056,750	3,010,422	1,707,532	579,303
2000	119,173,400	3,163,954	1,761,987	597,778
2010	125,608,750	3,284,185	1,828,942	602,243

Table IV

BOSTON EMPLOYMENT 1950-1980

	1950	1960	1970	1975	1980
Growing Industries					
Finance, Insurance, Real Estate	49,321	55,081	69,452	60,858	70,451
Services	87,224	103,375	131,575	152,000	187,991
Government	77,404	87,158	90,022	86,926	96,017
Sub-Total	213,949	245,614	291,049	299,784	354,459
% of Total	(41%)	(46%)	(53%)	(59%)	(65%)
Declining Industries					
Agriculture/Mining	1,737	1,275	717	819	518
Construction	19,898	17,836	20,490	16,126	14,663
Manufacturing	101,586	87,838	64,859	51,504	51,861
Trade	145,962	125,581	121,481	93,283	83,027
Sub-Total	269,183	232,530	207,547	161,732	150,069
% of Total	(51%)	(44%)	(38%)	(32%)	(27%)
Stable Industries					
Transportation, Communications, Public Utilities	36,848	40,750	41,351	34,756	36,660
Proprietors	12,191	11,906	11,945	10,810	11,754
Sub-Total	49,039	52,656	53,298	45,566	48,414
% of Total	(8%)	(10%)	(9%)	(9%)	(8%)
Total	523,171	530,800	551,892	507,082	548,497

Sources and Methodology
For Tables I, II, and III.

Table I

Source: 1980: Employment from U.S. Bureau of Economic Analysis, Regional Economic Information System, April, 1982. MAPC Region and City of Boston were calculated as percentages of Boston Metropolitan Region Counties and Suffolk County Totals.

Methodology:
(1) U.S. projections from 1980 BEA/OBERS forecast, July 1981.
(2) Massachusetts projections based on 1967-1980 trend line regression of employment to the year 2010. Decennial employment (1990,2000) based on ratio of U.S. interval year to U.S. 2010 employment applied to Massachusetts 2010 employment.
(3) MAPC projections based on a gradually declining percent share of State employment 1980-2010.
(4) Boston projections based on a gradually declining percent share of MAPC Region employment 1980-2010.

Table II

Source: 1980: Same as Table I.

Methodology:
(1) U.S. projections from August 1981 Monthly Labor Review, U.S. Bureau of Labor Statistics High Trend I forecast.
(2) Massachusetts projections based on ~~80~~ 70 percent of U.S. Decennial. Employment projection rate 1980-2010.
(3) MAPC projections based on a gradually declining percent share of State employment 1980-2010.
(4) Boston projections based on a gradually declining percent share of State employment 1980-2010, and analysis of Boston projected share of U.S. at the 2-digit SIC level.

Table III

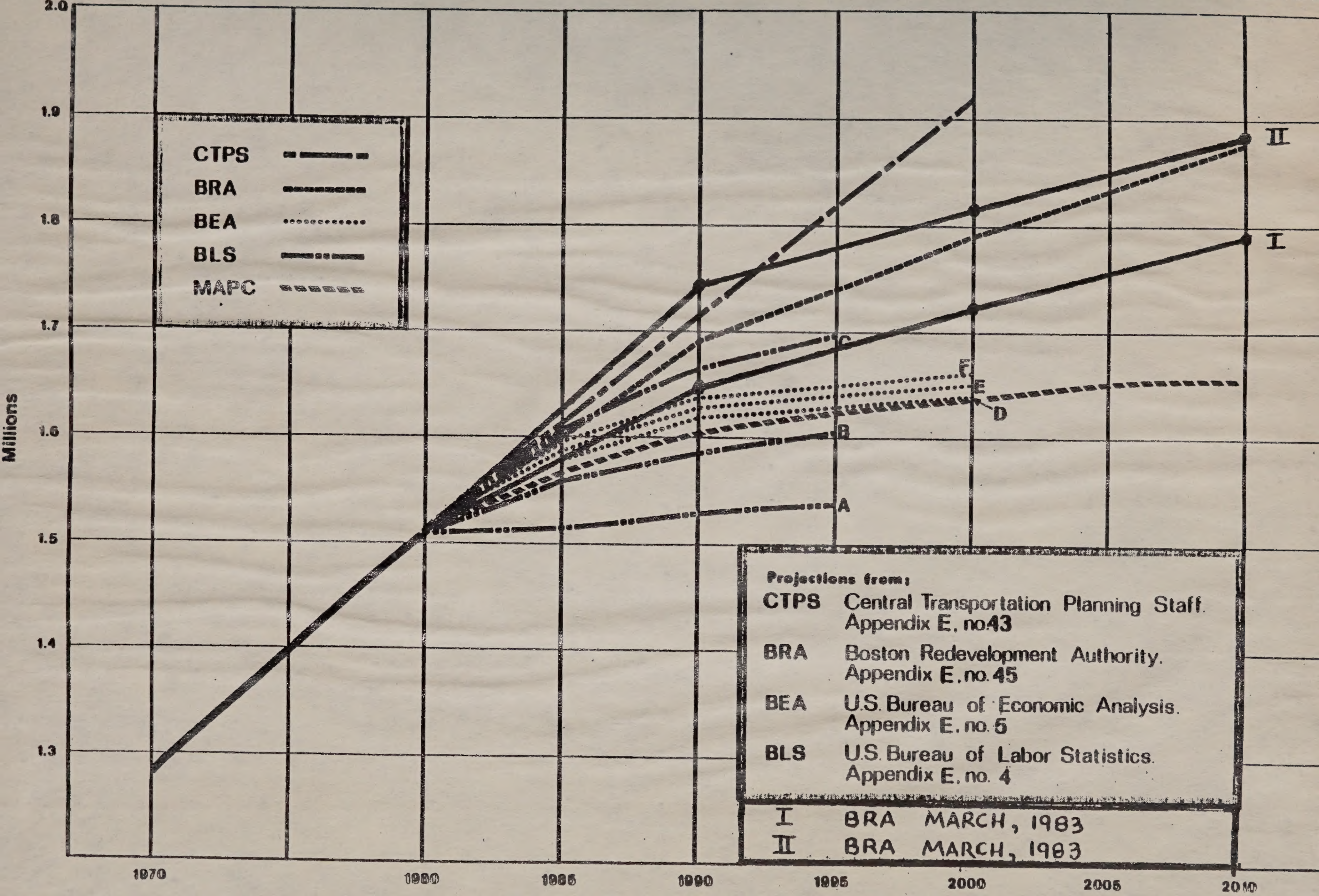
Methodology:
A. Moderate growth series of employment for all areas are from Table I (BEA equivalent) expressed in MAPC/DES equivalent employment series which excludes proprietors, agricultural jobs, and positions not covered by the unemployment insurance program. Uses stepdown ratios:

U.S.	85%
Mass.	89.5%
MAPC Region	92.3%
Boston	92.1%

B. High growth series uses data from Table II (BEA equivalent) stepped down to MAPC/DES equivalent employment using ratios given for IIIA.

Figure 4

EMPLOYMENT: MAPC REGION HISTORICAL & PROJECTED



2.0
1.9
1.8
1.7
1.6
1.5
1.4
1.3
Millions
1970
1980
1985
1990
1995
2000
2005
2010
CTPS
BRA
BEA
BLS
MAPC
A
B
C
D
E
F
I
II
Projections from:
CTPS Central Transportation Planning Staff. Appendix E, no.43
BRA Boston Redevelopment Authority. Appendix E, no. 45
BEA U.S. Bureau of Economic Analysis. Appendix E, no. 5
BLS U.S. Bureau of Labor Statistics. Appendix E, no. 4
I BRA MARCH, 1983
II BRA MARCH, 1983